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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/24/2003

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06/30/2006

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EXAMINER

SCHINDLER, DAVID M

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

1. This action is in response to the communication filed 4/13/2006.

Response to Arguments

2. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to Claims 1-17,

Claim 1 now recites "that allow a magnetic moment of the probe to be modulated in a range of temperatures above a Curie temperature of the material" on lines 4-5. This new feature does not appear to be supported by the original disclosure.

The Examiner notes paragraph [0021] on page 6 of applicant's specification. This paragraph states in part that the tip coating material is a ferromagnetic or paramagnetic having a low Curie temperature. It further states that the magnetic

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moment as a function of temperature monotonically decreases for both ferromagnetic and paramagnetic materials, and the magnetic moment is finally "quenched" at the Curie temperature. The paragraph goes on to state that modulation of the magnetic moment for a low-Curie temperature material is thus more feasible for an obtainable range of temperatures than is the modulation for a high-Curie temperature material. Additionally, the paragraph states that in one embodiment, a low Curie temperature material has a Curie temperature that is approximately 50-100 degrees Celsius above ambient, so that heating can comfortably approach the Curie temperature without mechanically distorting the microscope. Neither this paragraph, nor any other appear to support the above newly added claimed feature in which a magnetic moment of the probe is to be modulated in a range of temperatures above a Curie temperature of the material.

The Examiner also notes lines 1-12 of page 8 of applicant's specification. In this location, it appears that a temperature is used that exceeds the Curie temperature of the ferromagnetic material. However, the Examiner notes that at the Curie temperature of 110 degrees, it appears that the magnetic moment is quenched at 110 degrees.

As to Claims 18, 19, and 21,

Please see the above rejection of claims 1-17.

As to Claim 20,

Please see the above rejection of claims 1-17.

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5. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is noted to applicant that the newly added feature to independent claims 1, 18, and 20 does not appear to be enabled. Specifically, and using claim 1 as an example, the feature "that allow a magnetic moment of the probe to be modulated in a range of temperatures above a Curie temperature of the material" on lines 4-5 appears to lack enablement.

The Examiner notes paragraph [0021] of page 6 of applicant's specification which states that "the magnetic moment is finally "quenched" at the Curie temperature" on lines 4-5. Therefore, if the magnetic moment is "quenched" at the Curie temperature, it is not understood how a magnetic moment can exist above the Curie temperature. Therefore, the newly added feature is unclear, and appears to lack enablement.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to the above claims, the newly added claim limitations found in independent claims 1, 18, and 20 are not clearly understood. Clarification is requested.

8. **Note:** Due to the informal nature of the claims, an art rejection is not being applied at this time.

Conclusion

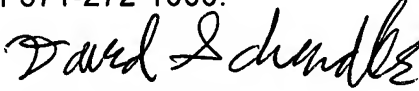
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Schindler whose telephone number is (571) 272-2112. The examiner can normally be reached on M-F (8:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David Schindler
Examiner
Art Unit 2862

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